

20/20 Ponds Wetland Data Summary

Birds

Birds were monitored at the ponds on January 28, 2001 and November 6, 2001. Bird species observed:

Common Name	Group
Great Blue Heron	Bitterns & Herons
Red-winged Blackbird	Blackbirds & Orioles
Brewer's Blackbird	Blackbirds & Orioles
American Goldfinch	Finches
Pied-billed Grebe	Grebes
Ring-billed Gull	Gulls, Terns & Alcids
Northern Harrier	Hawks & Falcons
Peregrine Falcon	Hawks & Falcons
American Kestrel	Hawks & Falcons
Black-billed Magpie	Jays & Crows
Ring-necked Pheasant	Pheasants, Grouse & Quail
Northern Shrike	Shrikes
White-crowned Sparrow	Sparrows
Song Sparrow	Sparrows
European Starling	Starlings
American Coot	Rails & Cranes
Mallard	Swans, Geese & Ducks
Northern Shoveler	Swans, Geese & Ducks
Ring-necked Duck (?)	Swans, Geese & Ducks
Canvasback	Swans, Geese & Ducks
Tundra Swan	Swans, Geese & Ducks
Canada Goose	Swans, Geese & Ducks
Bufflehead	Swans, Geese & Ducks
American Wigeon	Swans, Geese & Ducks
Trumpeter Swan	Swans, Geese & Ducks
Northern Pintail	Swans, Geese & Ducks
Common Goldeneye	Swans, Geese & Ducks
Gadwall	Swans, Geese & Ducks
Lesser Scaup	Swans, Geese & Ducks
American Robin	Thrushes
Black-capped Chickadee	Titmice, Verdin & Bushtit

A great majority of the birds observed at the ponds, both in individual numbers and number of different species, are waterfowl. They are attracted by the year-round open water. Birds listed as rare in winter (when the site was monitored) by the Field Checklist of the Birds of Utah are the Peregrine Falcon, Tundra Swan and Trumpeter Swan. Birds listed as uncommon in winter include the Pie-billed Grebe, Northern Shrike, Bufflehead, Northern Pintail, Common Goldeneye, Gadwall, and Lesser Scaup. All other birds seen are typical of the Utah in the winter.

Water Quality

Water quality parameters have been tested 3 times at the ponds. Results are displayed in the table below:

Parameter	Units	July 7, 2001	Aug 22, 2001	Nov 6, 2001	UT Aquatic Standards 3D
Time of day		4:45 pm	10:00 am	3:30 pm	
Water Temperature	Celsius	18.2	14.6	11.3	max 27
pH		7	7	7	range 6.5-9.0
Phosphate	mg/l	0	0	0	no standard
Nitrate	mg/l	0	0.1	0.2	max 4.0
Dissolved Oxygen	PPM mg/l	12	10	12	min 3.0
Turbidity	cm	60	60	60	
Turbidity	NTUs	6	6	6	increase of 15

These measurements surpass all the State of Utah's "Water Quality Standards for Aquatic Wildlife, Class 3D" (protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain). The nitrate measurement has shown some increase over the measurement period but is still well below the state maximum standard of 4.0 mg/l.

Macroinvertebrates

Macroinvertebrates have been collected at the ponds 3 times, on December 9, 2000, May 5, 2001, November 6, 2001, and November 21, 2001. The samples are at the USU Bug Lab awaiting sorting and insect identification. From initial observation the majority of the macroinvertebrates are SCUDS (Amphipoda), a type of freshwater crustacean. "Scuds occur primarily in shallow waters of all kinds. They are benthic and often rest among vegetation and debris or occasionally slightly within the soft substrate. They also swim, however, and are sometimes known as "sideswimmers." They generally eat living and dead plant material but can be predaceous. Scuds are an important food source for many fishes." (McCafferty, W. Patrick. 1998. Aquatic entomology: The fishermen's and ecologist' illustrated guide to insects and their relatives. Sudbury, MA: Jones and Bartlett.)

Wildlife

The wildlife monitoring protocol was developed in the summer of 2001. It has only been carried out once at the ponds, on November 6, 2001. The animal evidence observed was:

Deer (tracks)

Fox (tracks and scat)

Gopher (holes)

Land Use/Mapping

A map of the site was drawn on an aerial photo, and the land uses around the pond delineated in November of 2001. Broken into categories, the land use in a 200 ft buffer around the ponds is:

Residential	8%
Agriculture	56%
Dirt Roads	2%

Upland Grasses 34%

Vegetation

Vegetation transects have been established at the ponds and monitored once, in August of 2001. The plant species observed so far are (by group):

Forbs:

Alfalfa
Bittersweet Nightshade
Black Mustard
Canada Thistle*
Cattail
Common Burdock
Field Bindweed*
Field Mint
Houndstongue
Perennial Sowthistle
Poison Hemlock ^
Prickly Lettuce
Purple Loosestrife*
Salsify
Scouring Rush
Teasel
Unknown aster
Unknown mustard
Unknown ragweed
Unknown thistle
Yarrow

Grasses:

Basin Wild Rye
Downy Brome
Slender Wheatgrass
Smooth Brome
Soft Brome

Rushes:

Baltic Rush

Sedges:

Nebraska Sedge

Shrubs:

Wild Rose

Trees:

Box Elder Maple
Hawthorne

* State of Utah noxious weed

^ Cache Country noxious weed

The vegetation around the ponds is different from other wetlands we monitor in several ways. First, since the ponds are deep-sided water bodies instead of emergent marsh, we see fewer wetland and aquatic plants. Plants considered to be wetland plants that we have observed at the ponds include cattail, Baltic rush, Nebraska sedge, Basin wild rye, slender wheatgrass, and poison hemlock. Also, land very close to the ponds has been cultivated and/or seeded, and that accounts for the presence of plants such as alfalfa and the variety of grasses.

Dominant plants on the site are the upland grasses, thistles, mustards, and purple loosestrife at the water's edge. Purple loosestrife is a State of Utah noxious weed. According to the Noxious Weed Field Guide for Utah, infestations of purple loosestrife can impede water flow and replace beneficial plants, displacing wildlife.